



STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene

Larry Hogan, Governor - Boyd Rutherford, Lt. Governor - Van Mitchell, Secretary

April 29, 2016

Public Health Preparedness and Situational Awareness Report: #2016:16
Reporting for the week ending 4/23/16 (MMWR Week #16)

CURRENT HOMELAND SECURITY THREAT LEVELS

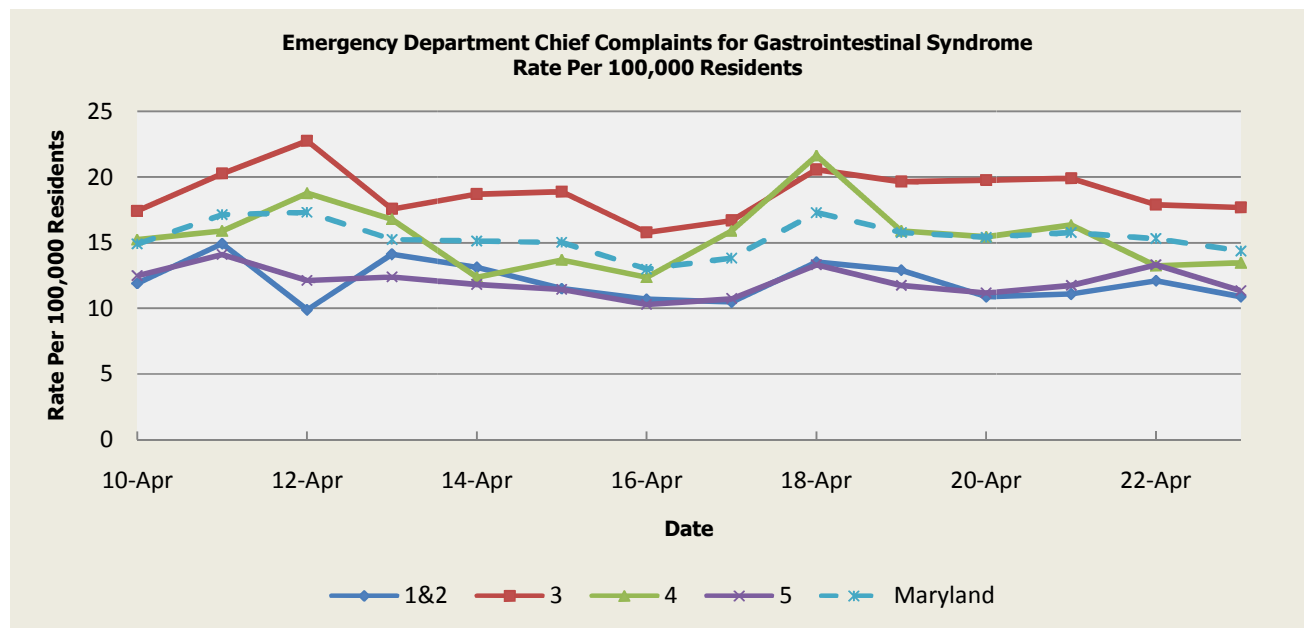
National: No Active Alerts

Maryland: Level Four (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.

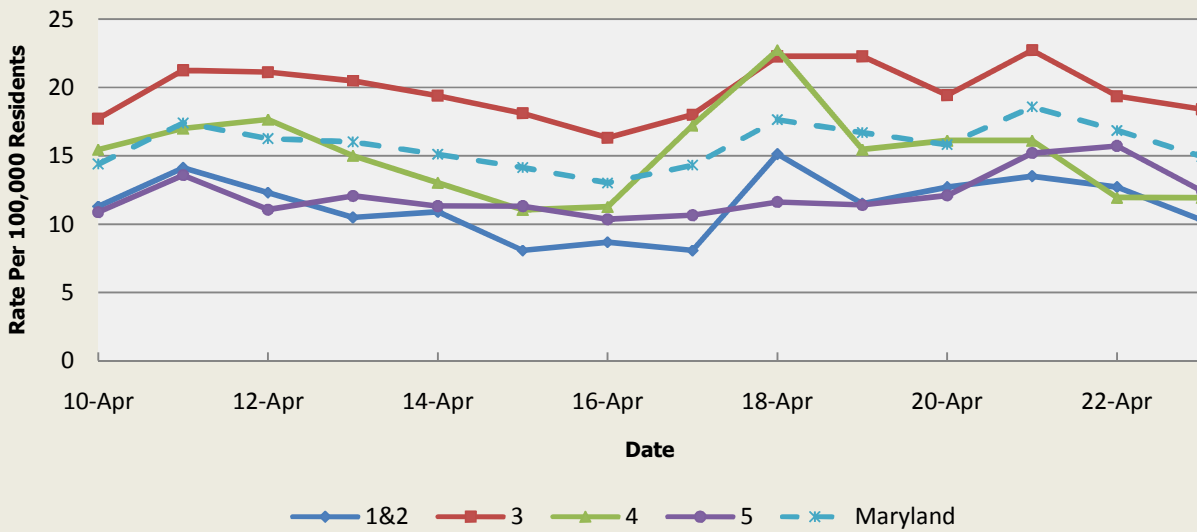


There were four (4) gastrointestinal illness outbreaks reported this week: 2 outbreaks of gastroenteritis in Assisted Living Facilities (Region 3 and 4); and 2 outbreaks of gastroenteritis in Nursing Homes (Region 5).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	13.02	14.92	15.52	10.38	13.07
Median Rate*	12.70	14.43	14.80	10.17	12.73

* Per 100,000 Residents

Emergency Department Chief Complaints for Respiratory Syndrome Rate Per 100,000 Residents

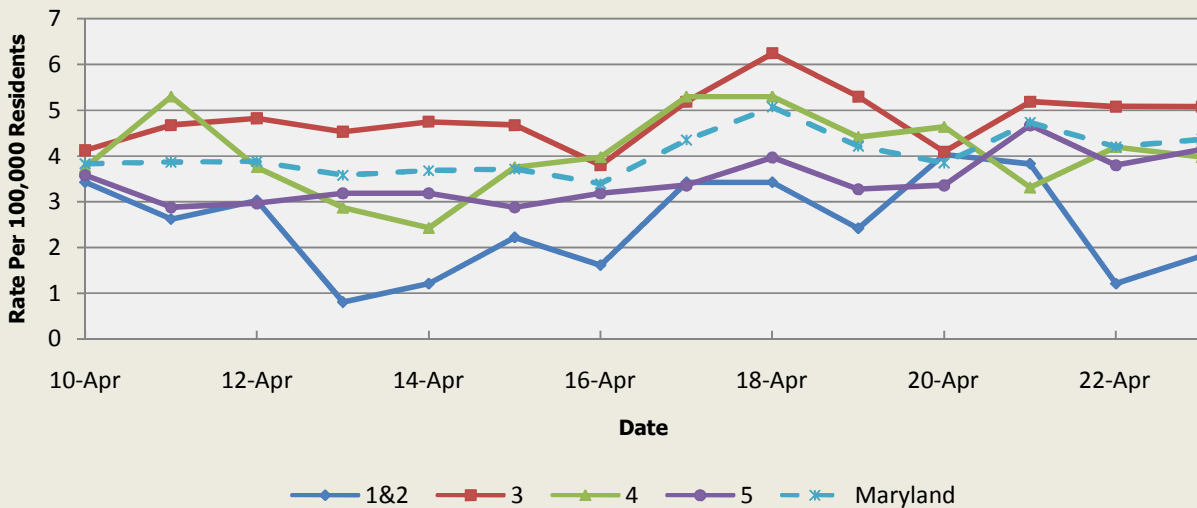


There were (3) respiratory illness outbreaks reported this week: 1 outbreak of influenza in a Nursing Home (Region 3); 1 outbreak of influenza associated with a School (Region 3); 1 outbreak of ILI/Pneumonia in a Nursing Home (Region 3).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.06	14.15	14.11	9.99	12.38
Median Rate*	11.70	13.34	13.47	9.52	11.76

* Per 100,000 Residents

Emergency Department Chief Complaints for Fever Syndrome Rate Per 100,000 Residents

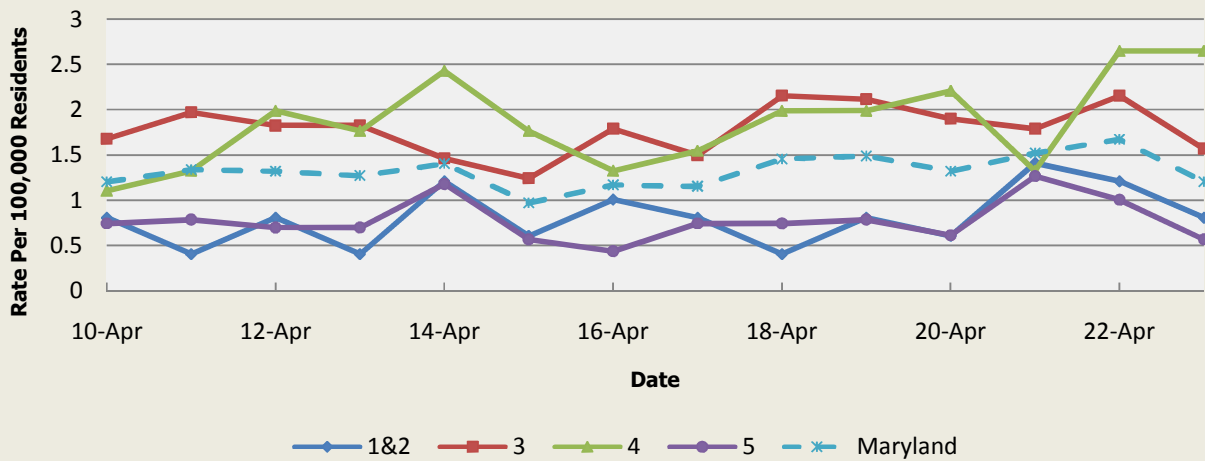


There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.10	3.81	3.95	3.11	3.49
Median Rate*	3.02	3.62	3.75	2.97	3.33

Per 100,000 Residents

Emergency Department Chief Complaints for Localized Lesion Syndrome Rate Per 100,000 Residents



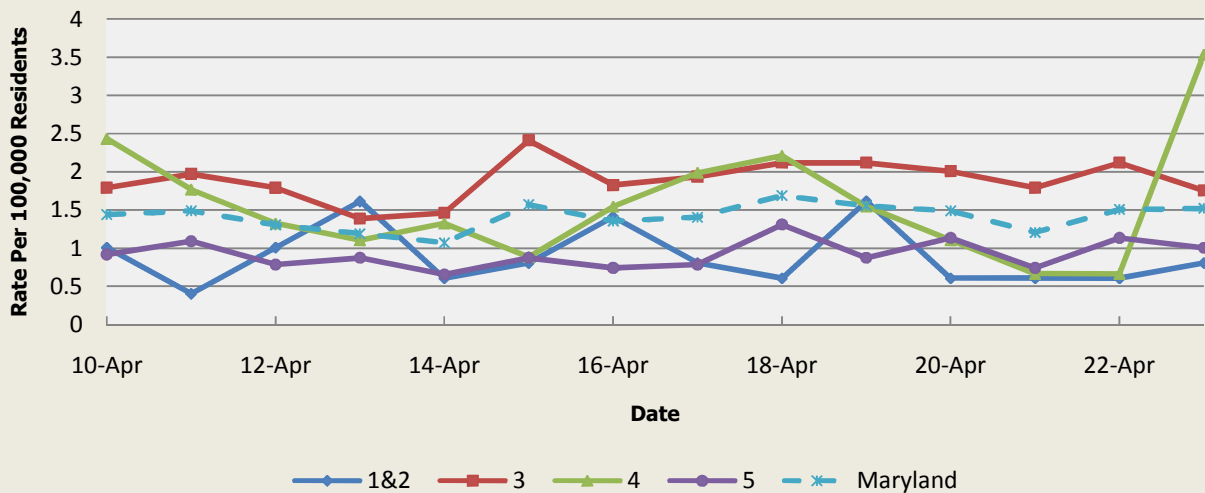
There were no localized lesion outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.08	1.93	2.04	0.99	1.51
Median Rate*	1.01	1.86	1.99	0.96	1.44

* Per 100,000 Residents

Emergency Department Chief Complaints for Rash Syndrome Rate Per 100,000 Residents



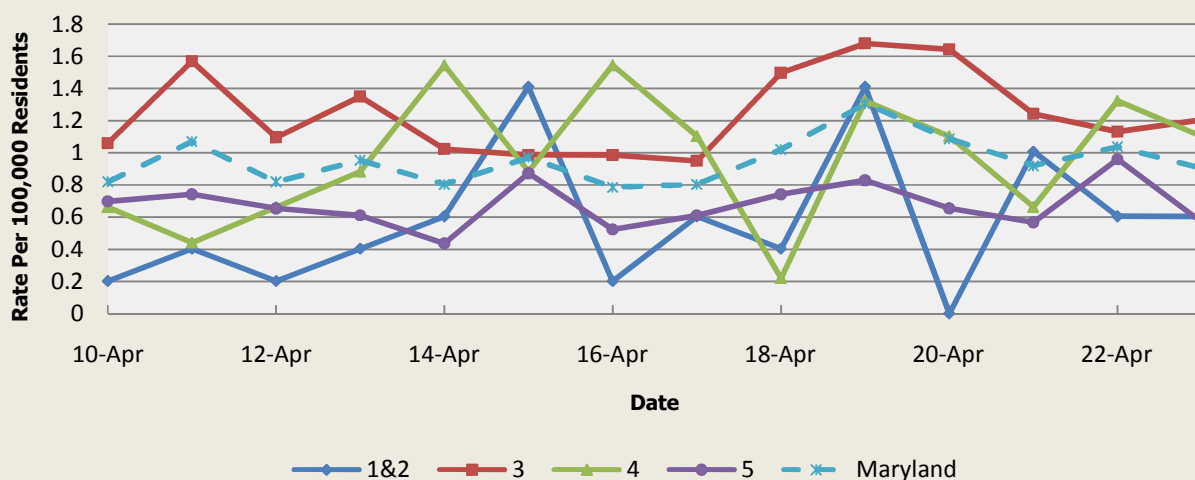
There was one (1) rash outbreaks reported this week: 1 outbreak of Hand, Foot and Mouth disease associated with a Daycare Center (Region 5).

Rash Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.31	1.75	1.76	1.05	1.45
Median Rate*	1.21	1.68	1.77	1.00	1.39

* Per 100,000 Residents

Emergency Department Chief Complaints for Neurological Syndrome Rate Per 100,000 Residents



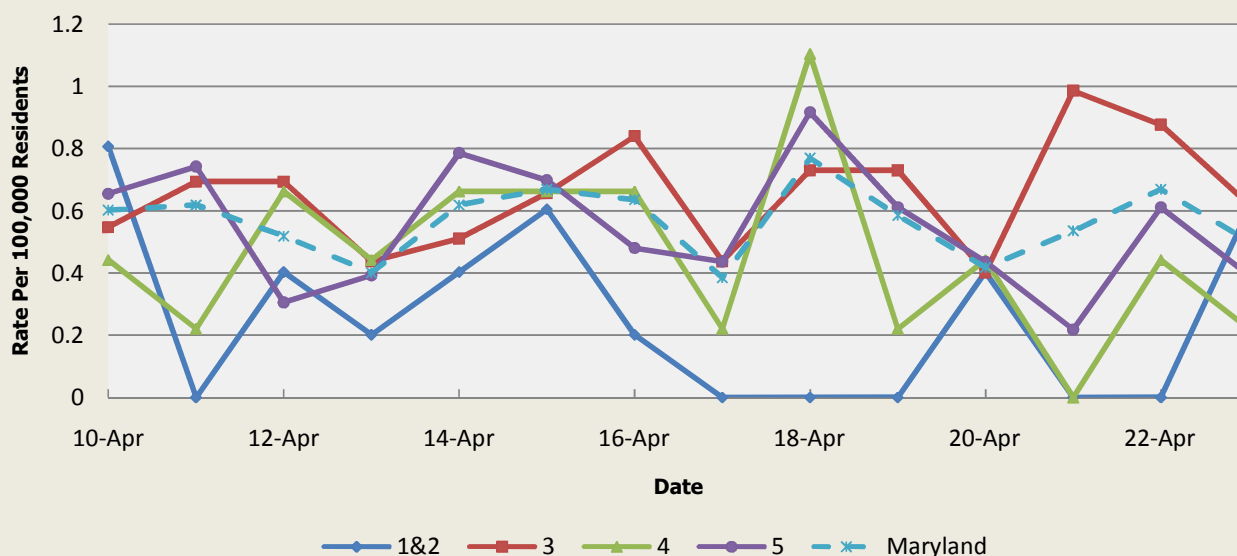
There were no neurological syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.73	0.65	0.48	0.62
Median Rate*	0.60	0.66	0.66	0.44	0.55

* Per 100,000 Residents

Emergency Department Chief Complaints for Severe Illness or Death Syndrome Rate Per 100,000 Residents



There were no severe illness or death outbreaks reported this week.

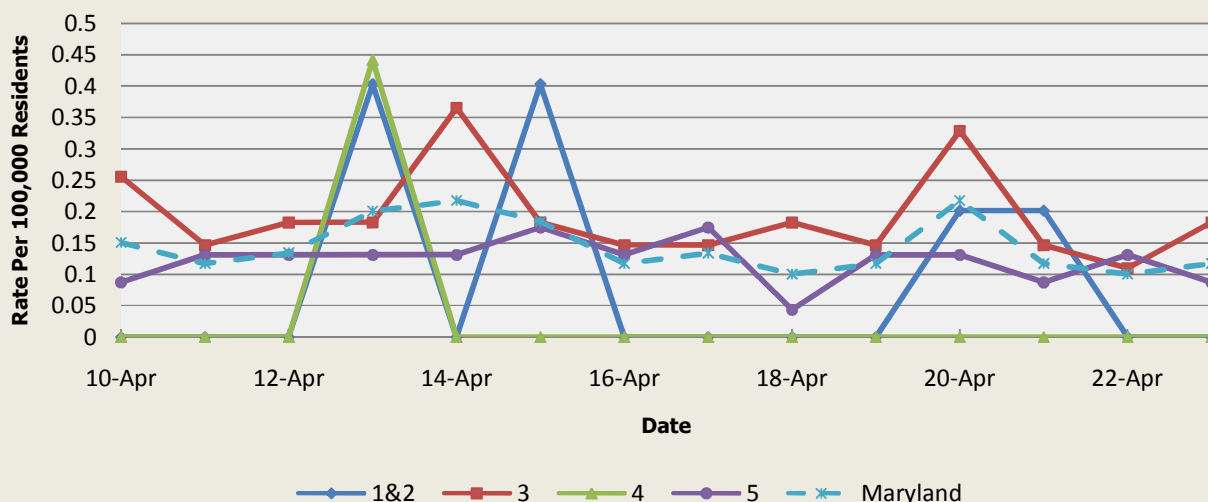
Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.71	0.96	0.86	0.44	0.73
Median Rate*	0.60	0.95	0.88	0.44	0.72

* Per 100,000 Residents

SYNDROMES RELATED TO CATEGORY A AGENTS

**Emergency Department Chief Complaints for Botulism-like Syndrome
Rate Per 100,000 Residents**



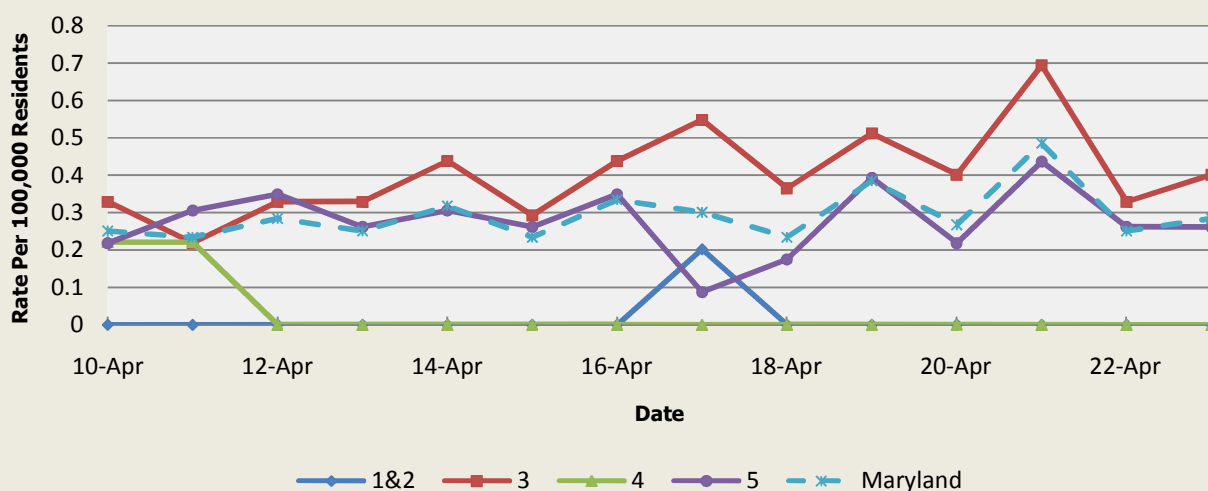
There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 4/10 (Region 3,5), 4/11 (Region 5), 4/12 (Region 3,5), 4/13 (Regions 1&2, 3,4,5), 4/14 (Region 3,5), 4/15 (Regions 1&2, 3,5), 4/16 (Region 5), 4/18 (Region 3), 4/19 (Region 5), 4/20 (Regions 1&2,3,5), 4/21 (Regions 1&2,5) and 4/23 (Region 3,5). These increases are not known to be associated with any outbreaks.

**Botulism-like Syndrome Baseline Data
January 1, 2010 - Present**

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.08	0.04	0.05	0.06
Median Rate*	0.00	0.04	0.00	0.04	0.05

* Per 100,000 Residents

**Emergency Department Chief Complaints for Hemorrhagic Illness Syndrome
Rate Per 100,000 Residents**



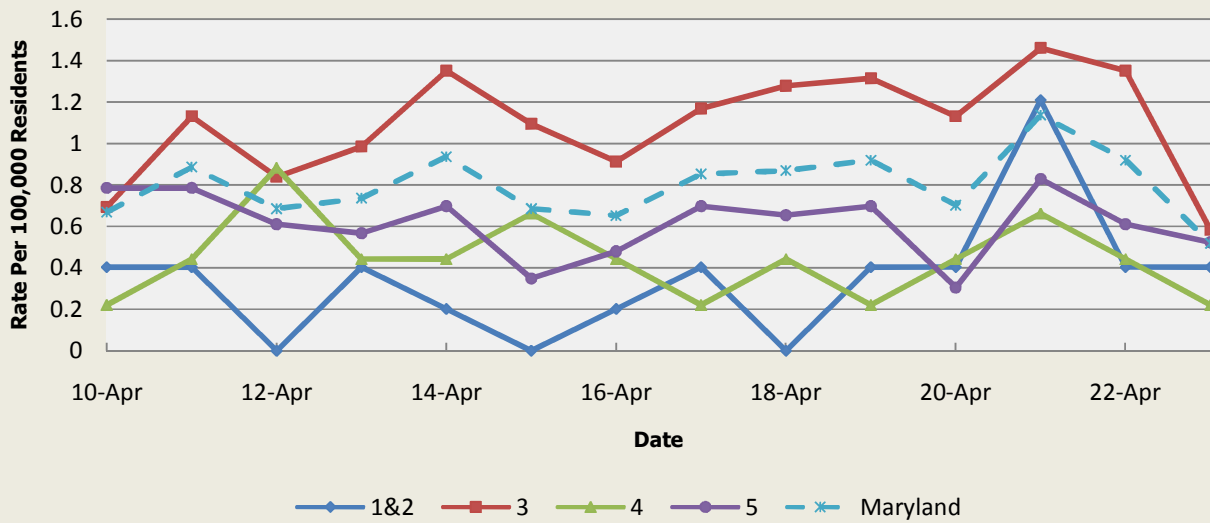
There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 4/10 (Regions 3,4,5), 4/11 (Regions 3,4,5), 4/12 (Regions 3,5), 4/13 (Regions 3,5), 4/14 (Regions 3,5), 4/15 (Regions 3,5), 4/16 (Regions 3,5), 4/17 (Regions 1&2,3), 4/18 (Region 3,5), 4/19 (Region 3,5), 4/20 (Region 3,5), 4/20 (Region 3,5), 4/21 (Region 3,5), 4/22 (Region 3,5), and 4/23 (Region 3,5). These increases are not known to be associated with any outbreaks.

**Hemorrhagic Illness Syndrome
Baseline Data
January 1, 2010 - Present**

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.10	0.03	0.07	0.08
Median Rate*	0.00	0.04	0.00	0.04	0.03

* Per 100,000 Residents

Emergency Department Chief Complaints for Lymphadenitis Syndrome Rate Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 4/17 (Regions 3,5), 4/18 (Regions 3,5), 4/19 (Regions 3,5), 4/20 (Region 3), 4/21 (Regions 1&2,3,5), and 4/22 (Region 3,5). These increases are not known to be associated with any outbreaks.

Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.31	0.46	0.34	0.29	0.37
Median Rate*	0.20	0.37	0.22	0.26	0.32

* Per 100,000 Residents

MARYLAND REPORTABLE DISEASE SURVEILLANCE

Condition	Counts of Reported Cases†					
	April			Cumulative (Year to Date)**		
Vaccine-Preventable Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Aseptic meningitis	21	22	20	92	107.4	103
Meningococcal disease	0	0.6	0	1	3.4	3
Measles	1	0	0	2	1.6	0
Mumps	2	11	2	4	25	4
Rubella	1	0.2	0	1	0.8	1
Pertussis	6	13.2	16	49	76.6	82
Foodborne Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Salmonellosis	19	42.2	40	130	177.8	167
Shigellosis	5	10.4	13	33	54	52
Campylobacteriosis	18	36.4	35	160	148.4	147
Shiga toxin-producing Escherichia coli (STEC)	4	7.2	6	31	26.6	25
Listeriosis	1	0.8	1	3	2.4	2
Arboviral Diseases	2016	Mean*	Median*	2016	Mean*	Median*
West Nile Fever	0	0	0	0	0	0
Lyme Disease	23	51.6	48	172	225.8	203
Emerging Infectious Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Chikungunya	0	0	0	2	2.6	0
Dengue Fever	2	1	0	9	3.8	3
Zika Virus***	5	0	0	11	0.2	0
Other	2016	Mean*	Median*	2016	Mean*	Median*
Legionellosis	4	5.4	6	25	27.4	28

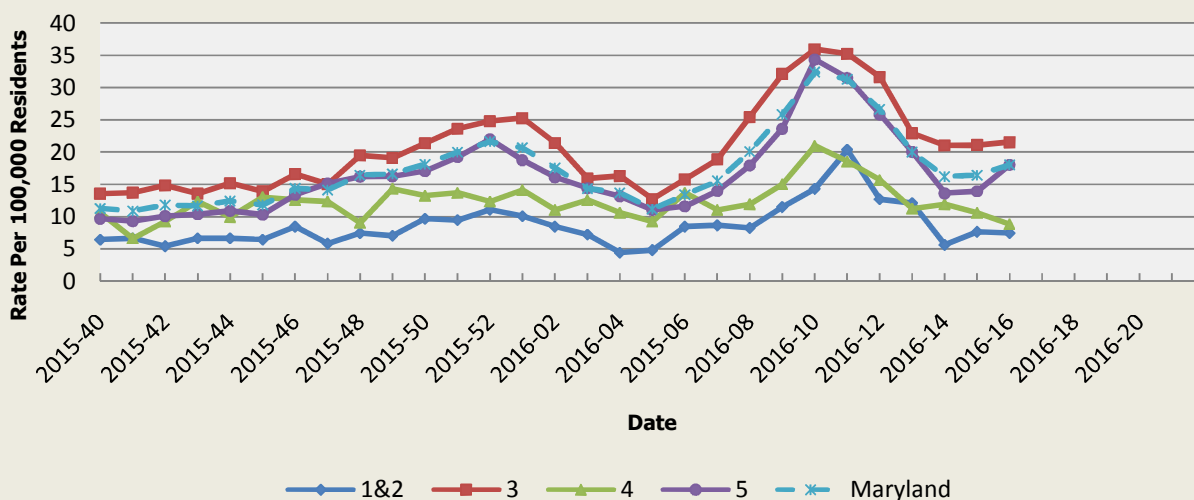
† Counts are subject to change *Timeframe of 2011-2015 **Includes January through current month

***As of April 27, 2016, the total Maryland Confirmed Zika Virus Infections is 12.

SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 16 was: Local Geographic Spread with Minimal Intensity.

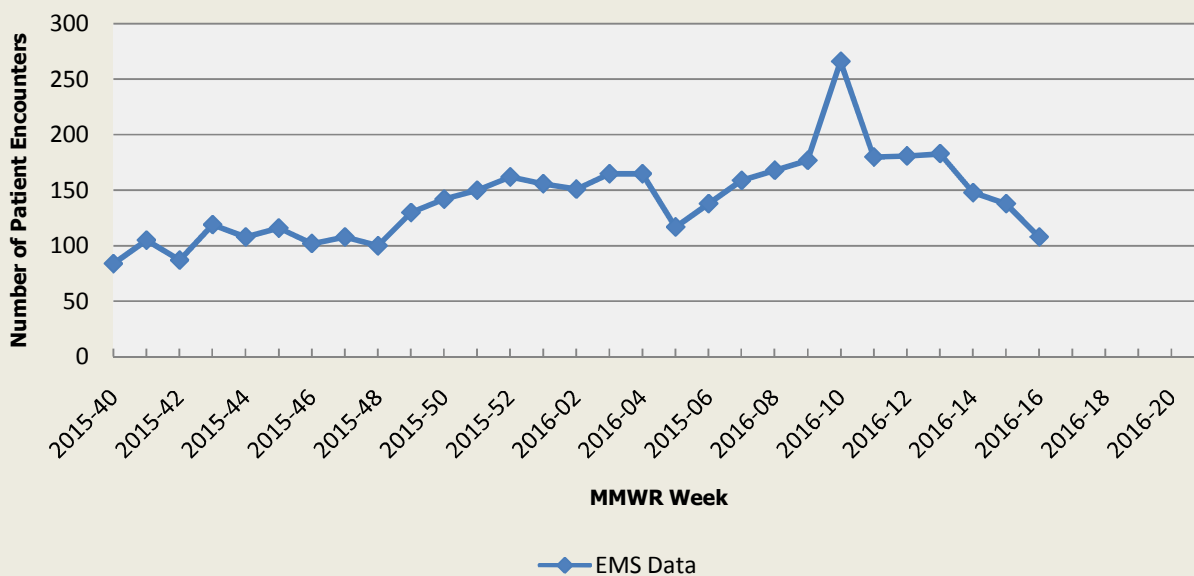
**Emergency Department Chief Complaints for Influenza-like Illness
Rate Per 100,000 Residents**



Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.29	11.50	10.79	10.39	10.84
Median Rate*	7.66	8.95	9.05	7.99	8.63

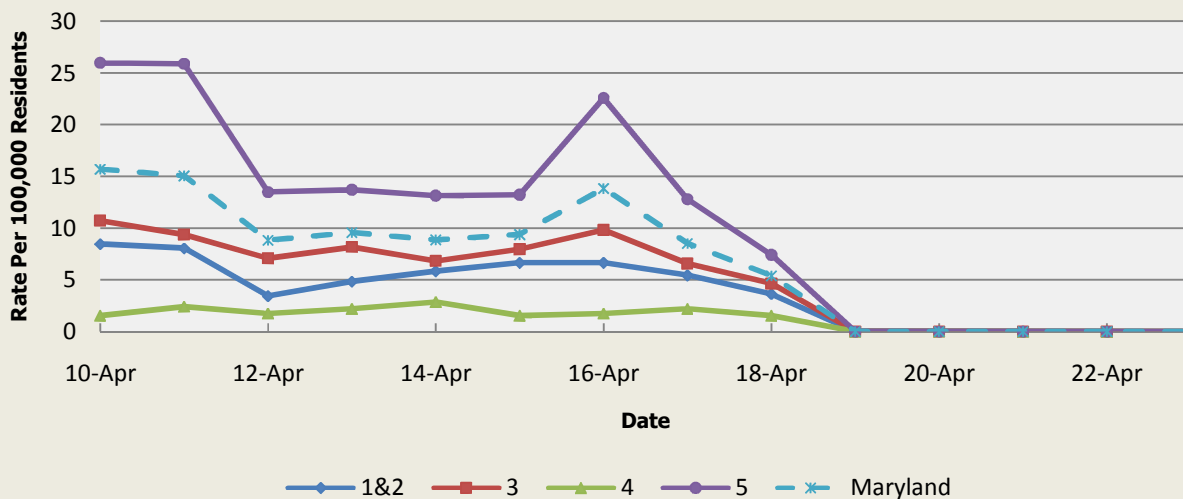
* Per 100,000 Residents

**Emergency Medical Services Influenza Like Illness Contacts by Week
Source: eMEDS Patient Care Reports**



Disclaimer on eMEDS flu related data: This data is based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. This data is reported for trending purposes only.

Over-the-Counter Medication Sales Related to Influenza Rate Per 100,000 Residents

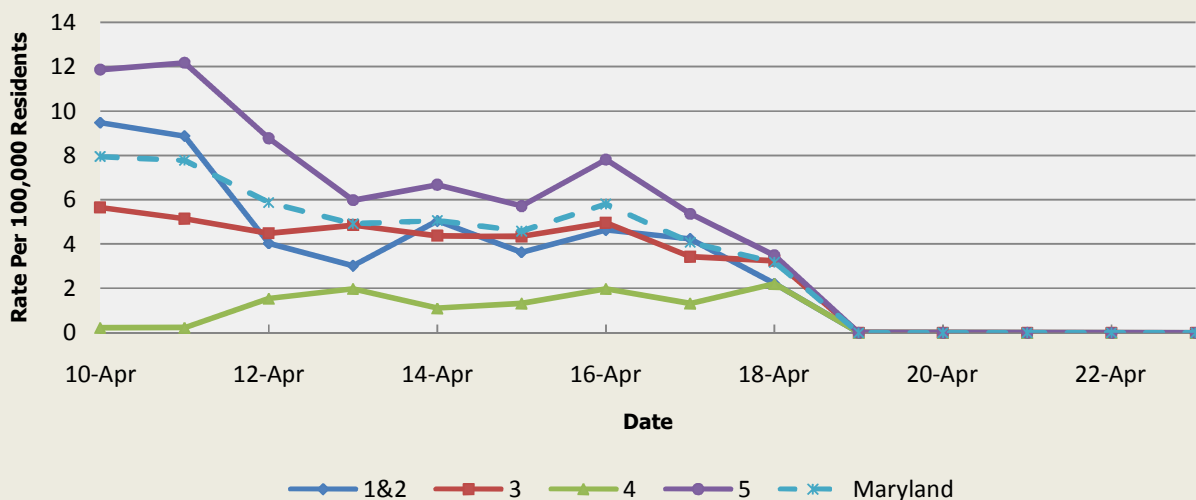


There was an appreciable increase above baseline in the rate of OTC flu medication sales on 4/10 (Regions 1&2), 4/11 (Regions 1&2).

OTC Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.89	6.48	1.86	14.10	8.84
Median Rate*	3.02	5.41	1.55	11.44	7.21

* Per 100,000 Residents

Over-the-Counter Thermometer Sales Rate Per 100,000 Residents



There was an appreciable increase above baseline in the rate of OTC thermometer sales on 4/10 (Regions 1&2) and 4/11 (Regions 1&2).

Thermometer Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	4.16	4.76	1.62	7.39	5.48
Median Rate*	3.63	4.38	1.55	6.72	5.02

* Per 100,000 Residents

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of April 4, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 850, of which 449 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

Avian Influenza in Humans:

H5N6 (CHINA): 26 Apr 2016, The Centre for Health Protection (CHP) of the [Hong Kong] Department of Health (DH) was notified of an additional human case of avian influenza A (H5N6) in Hunan by the National Health and Family Planning Commission today [26 Apr 2016], and again urged the public to maintain strict personal, food, and environmental hygiene both locally and during travel. The case involves an 11-year-old girl who lives in Zhuzhou, Hunan. With history of poultry contact before onset, the patient developed fever on [11 Apr 2016] and was admitted to a local hospital the next day. She is now in stable condition. Read More: <http://www.promedmail.org/post/4186019>

There were no reports of human cases of avian influenza in the United States at the time that this report was compiled.

Avian Influenza in Poultry:

H5N1 (LEBANON): 23 Apr 2016, Affected population: infected farm of 20 000 birds was identified in the Bekaa region. The owner of the closed farm notified abnormal mortality among his birds, in Nabichit -- Bekaa Valley. The farm unit was immediately put under quarantine. Epidemiological investigation and epidemiological sampling are on-going on the area. The National Reference Laboratory identified a highly pathogenic H5N1 strain. Read More: <http://www.promedmail.org/post/4182221>

NATIONAL DISEASE REPORTS

BOTULISM (USA): 26 Apr 2016, Krasnyi Oktyabr Inc in Brooklyn, NY, is recalling Vobla (Roach) Dry Eviscerated Salted Fish and Bream Dry Eviscerated Salted Fish because they have the potential to be contaminated with *Clostridium botulinum*. This bacterium produces a toxin that can cause illness and death. No illnesses have been reported to date in connection with the consumption of these products. Read More: <http://www.promedmail.org/post/4184418>

ELIZABETHKINGIA ANOPHELIS (WI): 27 Apr 2016, The Wisconsin Department of Health Services (DHS), Division of Public Health (DPH) is currently investigating an outbreak of bacterial infections caused by *Elizabethkingia anopheles*. The majority of patients acquiring these infections are over 65 years old, and all patients have a history of at least one underlying serious illness. The Department quickly identified effective antibiotic treatment for *Elizabethkingia*, and has alerted health care providers, infection preventionists and

laboratories statewide. Since the initial guidance was sent on 15 Jan 2016, there has been a rapid identification of cases, and healthcare providers have been able to treat and improve outcomes for patients. DHS continues to provide updates of outbreak-related information that includes laboratory testing, infection control and treatment guidance. Read More: <http://www.promedmail.org/post/4187853>

INTERNATIONAL DISEASE REPORTS

ANTHRAX (INDIA): 28 Apr 2016, The 13 tribal people, including a 1-year-old boy and a woman, from Panasapalli village in Hukumpeta mandal [similar to a county] of Visakha Agency [of Andhra Pradesh], who have been admitted to the King George Hospital [KGH, in Visakhapatnam] on [Tue 26 Apr 2016] with cutaneous anthrax, are improving, Superintendent of KGH M Madhusudhana Babu said on [Wed 27 Apr 2016]. Read More: <http://www.promedmail.org/post/4189530>

MERS-COV (SAUDI ARABIA): 25 Apr 2016, On [10 Apr 2016], the National IHR Focal Point of Bahrain notified WHO of a fatal case of Middle East respiratory syndrome coronavirus (MERS-CoV). This is the 1st case reported in Bahrain. Read More: <http://www.promedmail.org/post/4182391>

NOROVIRUS (PHILIPPINES): 25 Apr 2016, In Zamboanga City, city health officials reported Monday, 25 Apr 2016, that the case count has now hit 1174 in the past month [Apr 2016], which is straining the capacity of private and government hospitals. This has prompted City Health Officer Dr Rodel Agbulos to look at using the Paseo del Mar Complex to treat the burgeoning number of patients. Read More: <http://www.promedmail.org/post/4186834>

NOROVIRUS (SPAIN): 25 Apr 2016, More than 4,000 people fell ill with norovirus in northeastern Spain after drinking bottled spring water contaminated with human fecal matter, local health officials said Monday, 25 Apr 2016. The health department of the regional government of Catalonia said 4146 people were treated for symptoms including nausea, vomiting, and fever in Barcelona and Tarragona after drinking the contaminated water from office water coolers. 6 needed hospital treatment. Read More: <http://www.promedmail.org/post/4186835>

CIGUATERA FISH POISONING (CHINA): 25 Apr 2016, The Hong Kong Centre for Health Protection (CHP) of the Department of Health is investigating suspected ciguatera toxin poisoning cases affecting 3 patients, women aged from 43 to 80. Two patients developed symptoms of ciguatera poisoning including lip and limb numbness, weakness, dizziness and diarrhea about 4 to 7 hours after having self-prepared fish slices at their workplace on 18 Apr 2016. Another woman developed similar symptoms immediately after eating the same self-prepared fish slices at home on the same day. All sought medical attention, and one was admitted to Ruttonjee Hospital, and she had already been discharged. All are now in a stable condition. Read More: <http://www.promedmail.org/post/4185251>

BOTULISM (CANADA): 25 Apr 2016, The Canadian Food Inspection Agency is recalling a brand of salami sold in Nova Scotia due to concerns over botulism. The agency says the caraway-pepper salami sold by Webbersfood Ltd. is being pulled from store shelves because it may permit the growth of the dangerous bacteria. Read More: <http://www.promedmail.org/post/4182665>

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmm.maryland.gov/> or follow us on Facebook at www.facebook.com/MarylandOPR.

More data and information on influenza can be found on the DHMH website: <http://phpa.dhmm.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.dhmm.maryland.gov>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County

